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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,264

03/10/2004

Matthias H. Regelsberger

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EXAMINER

PHAM, HAI CHI

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 10/797,264	Applicant(s) REGELSBERGER ET AL.	
	Examiner Hai C. Pham	Art Unit 2861	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 December 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1,6,26-29,32-36 and 39.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

/Hai C Pham/
 Primary Examiner, Art Unit 2861
 January 10, 2009

Continuation of 11. does NOT place the application in condition for allowance because:

(1) The following is the analysis and the motivation for combining Sawada with Ng et al. to facilitate review by the Applicant: Sawada teaches an image forming apparatus and a method for uniformizing exposure energy between respective LEDs while equalizing average exposure energy between respective LED chips, the method comprising calculating a light-output correction for each of a plurality of subsets of the LEDs in a feedback control manner, i.e. method steps S11-S16, which complies with the claimed requirements, namely, each light-output correction for one of the LED subsets being calculated based at least upon factors pertaining to (a) a light output from the LED subset/chip associated with the light-output correction being calculated for that subset/chip, and (b) an average exposure energy EA being calculated based on the light output from the plurality of LED subsets/chips.

Ng et al. teaches an apparatus and a method for controlling the uniformity of the light emitted from the arrays of light emitting elements, wherein the process control determines whether a global exposure change is needed/required so as to calculate a new nominal LED power and to correct the time duration of the drive current supplied to the LEDs (Fig. 9) (col. 9, lines 13-67).

Since all the claimed elements would continue to operate in the same manner, specifically, the calculation of a light-output correction using the above-mentioned method steps S11-S16, is conducted until the average exposure energy becomes in agreement with the target value, and the same method steps S11-S16 would be repeated each time in response to an exposure requirement change in the printer that is within a full exposure range of the printhead. As such, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to apply the method steps S11-S16 of Sawada for correcting the light output of each of the plural subsets/chips of the LEDs and to repeat the same method steps of Sawada each time a global exposure change is required in the printer as suggested by Ng et al. such that normal production printing can continue without diminishing the quality of the image.

Applicant further argues that in combining Sawada with Ng et al., the examiner "ignores the teaching in Sawada that once in step S16 the virtual average exposure energy EA becomes in agreement with the target value E0, the method comes to an end". However, it is clearly understood that (1) the calibration of the output of the light emitting elements should come to an end once the goal is achieved, and (2) the same method steps S11-S16 are to be performed once each time in response to an exposure requirement change in the printer, i.e., for each exposure change, the calibration of the output of the light emitting elements is performed until it successively achieves its goal.

(2) Applicant further argues that the "proposed substitution of the time correction bit for each LED in Sawada with a correction of the amplitude of the driving current pulse for each LED in Uebbing et al. is unlikely one when considered in the context of Sawada", i.e., "Sawada is dependent on an approach that uses a time correction bit that is temporarily allocated (S13) on the basis of the measured light emission quantity of each LED". The examiner respectfully disagrees. Sawada teaches adjusting the exposure energy of the light emitting elements in each chip by "adjusting the feeding timing of the driving current," i.e. adjusting the time duration or the pulse width of the driving current (Sawada [0001]). In other words, the time correction bit of Sawada is indicative of the adjusted time duration or the pulse width of the driving current. On the other hand, Uebbing et al. teaches the correction of the light output of the LED can be performed by alternatively varying the pulse-width modulation or the magnitude of the driving current supplied to the LED (col. 2, lines 29-34) (col. 4, lines 19-32). Based on the teaching of Uebbing et al., one of ordinary skill in the art would have recognized that the modification of the amplitude of the driving current and the modification of the duration time of the driving current are known equivalents for adjusting the light intensity of the LED. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to substitute the time duration modification of the driving current of Sawada for another equivalent modification of the amplitude of the driving current supplied to the LED of Uebbing et al. resulting in the predictable result of adjusting the light output of the LED..